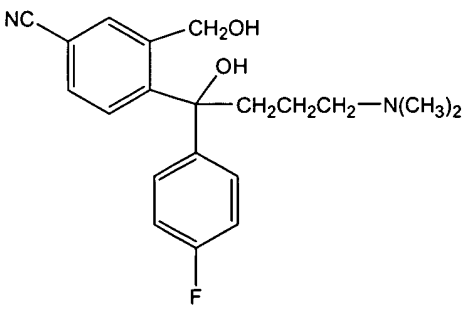
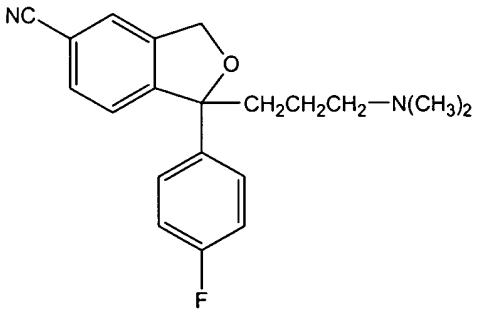
IN THE CLAIMS

Claim 1 (currently amended): A method for the preparation of citalopram and its salts, ~~which is~~ characterized in that~~by~~: a citalopram diol intermediate alkali is crystallized one or more times in the form of precipitate, the obtained crystal of Formula I is subjected to ring closure by dehydration to provide ~~give~~ citalopram of Formula II, or citalopram is further conversed into citalopram salts~~.~~, wherein Formula I and Formula II are as follows:



I



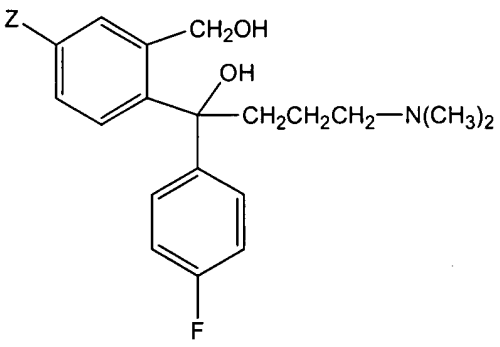
II.

Claim 2 (currently amended): A method for the preparation of S-citalopram and its salts, ~~which is~~ characterized ~~by~~ in that: a citalopram ~~diol~~ intermediate alkali is crystallized one or more times in the form of precipitate to provide a ~~give~~ citalopram ~~diol~~ intermediate alkali crystal, the obtained crystal is subjected to resolution and ring closure by dehydration to provide ~~give~~ S-citalopram, or S-citalopram is further conversed into S-citalopram salts.

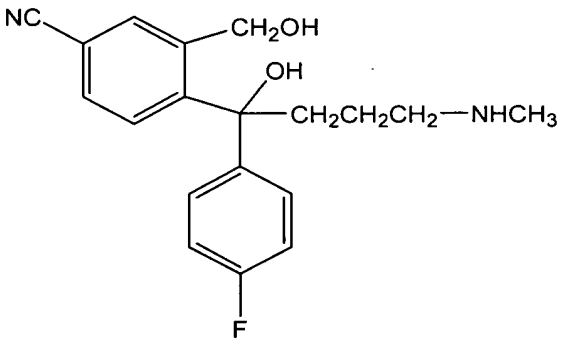
Claim 3 (currently amended): The method of Claim 2 characterized ~~by~~ in that: the prepared citalopram diol intermediate of Formula I is resoluted to provide ~~give~~ R- and/or S-citalopram diol intermediate free alkali, or their mixture, or their corresponding acid addition salts.

Claim 4 (currently amended): The method of Claim 1 ~~or 2~~ characterized ~~by~~ in that: citalopram diol intermediate free alkali of Formula I is separated from the impurities contained in the crude salt or crude mixture of citalopram diol intermediate alkali so that it is purified.

Claim 5 (currently amended): The method of Claim1 ~~or 2~~ characterized ~~by~~ in that: citalopram diol intermediate alkali is precipitated in the form of crystal, recrystallized one or more times and/or conversed into its salts so that one or more impurities of Formula III and/or IV contained in the crude salt or crude mixture is eliminated:



III



IV

in ~~In~~ Formula III, Z is halogen; $-O-SO_2-(CF_2)_n-CF_3$, wherein n is 0~8; -CHO; $-NHR^1$; $-COOR^2$; $-CONR^2R^3$; wherein R^2 and R^3 is hydrogen, alkyl, any substitutional aryl or arylalkyl, and R^1 is hydrogen or alkylcarbonyl.

Claim 6 (currently amended): The method of Claim 4 ~~any of the Claims 4-6~~ characterized ~~by~~ in that: the crude salt or crude mixture of citalopram diol intermediate alkali is primarily purified before it is precipitated in the form of crystal.

Claim 7 (currently amended): The method of Claim 4 ~~any of the~~

~~Claims 4-6~~ characterized ~~by~~ in that: citalopram diol intermediate alkali is set free from the crude salt or crude mixture and further purified before it is precipitated in the form of crystal.

Claim 8 (currently amended): A method for the preparation of R- or S-citalopram free alkali and its acid addition salts, ~~which is~~ characterized ~~by~~ in that: through the resolution of the mixture of S- and R- citalopram diol intermediate with more than 50% of one of the enantiomers, racemic citalopram diol intermediate free alkali and R- or S-citalopram diol intermediate free alkali are obtained, the ~~. The~~ method comprising the ~~includes~~ following steps:

(1) citalopram ~~Citalopram~~ diol intermediate is precipitated or crystallized from the solution or the solventless oil substance in the form of free alkali;

(2) the ~~The~~ precipitate or crystal is separated from the mother liquor or the oil substance;

(3) the ~~The~~ remained citalopram diol intermediate optical enantiomers in the mother liquor or the oil citalopram diol intermediate optical enantiomers are resoluted and their optical rotation are improved, then~~. Then~~ S-or R-citalopram diol intermediate is separated from the mother liquor, or~~. Or~~ the obtained solvent less oil alkali is conversed into S-or R-citalopram through ring closure, S-or R-citalopram is further conversed into its acid addition salts; wherein~~. Wherein,~~ S-citalopram diol intermediate is conversed into S-citalopram through proper ring closure reaction, R-citalopram diol intermediate is conversed into the mixture of S-citalopram and R-citalopram through proper ring closure reaction.

Claim 9 (currently amended): A method for the preparation of R-citalopram free alkali or S- citalopram free alkali and its acid addition salt, ~~which is~~ characterized ~~by~~ in that: through the resolution of the mixture of S- and R- citalopram diol intermediate with more than 50% of one of the enantiomers, racemic

citalopram diol intermediate salt and R- or S- citalopram diol intermediate salt are obtained, the method comprising ~~. The method includes~~ the following steps:

(1) citalopram ~~Citalopram~~ diol intermediate is precipitated or crystallized from the solution in the form of salt;

(2) the ~~The~~ precipitate or crystal is separated from the mother liquor; and

(3) the ~~The~~ remained citalopram diol intermediate salt optical enantiomers in the mother liquor are purified through resolution, and their optical rotation are improved, then~~. Then~~ S-or R-citalopram diol intermediate is separated from the mother liquor and conversed into S-or R-citalopram through ring closure, and finally conversed into its corresponding acid addition salts; wherein~~. Wherein,~~ S-citalopram diol intermediate is conversed into S- citalopram through proper ring closure reaction, R-citalopram diol intermediate is conversed into the mixture of S-citalopram and R-citalopram through proper ring closure reaction.

Claim 10 (currently amended): The method of Claim 8 for the preparation of R-citalopram free alkali or S-citalopram free alkali and its acid addition salts, ~~which is~~ characterized ~~by~~ in that:

(1) the ~~The~~ citalopram diol intermediate among the mixture of S- and R-citalopram diol intermediate is precipitated from the solution or directly crystallized from the oil mixture in the form of free alkali;

(2) the ~~The~~ precipitate or crystal is separated from the mother liquor or the oil; ~~,~~ and then

(3) after ~~After~~ separation, the mother liquor or the oil is further subjected to precipitation or crystallization, then~~. Then~~ S- and R-citalopram diol intermediate is separated from the mother liquor and further subjected to ring closure to give S- and R-citalopram, or the mixture of S- and R-citalopram, the~~. The~~ S-citalopram diol intermediate is subjected to ring closure to give S-citalopram, and S-citalopram can further be conversed into its

corresponding acid addition salts.

Claim 11 (currently amended): The method of Claim 9 for the preparation of R-citalopram free alkali or S-citalopram free alkali and its acid addition salts, ~~which is~~ characterized ~~by~~ in that:

(1) the ~~The~~ citalopram diol intermediate among the mixture of S- and R-citalopram diol intermediate salt mixture is precipitated or crystallized from the solution in the form of salt;

(2) the ~~The~~ precipitate or crystal is separated from the mother liquor; ~~,~~ and then

(3) after ~~After~~ separation, the mother liquor is further subjected to precipitation or crystallization, then. ~~Then~~ S- and R-citalopram diol intermediate salt is separated from the mother liquor and set free as alkali, the. ~~The~~ alkali is further subjected to ring closure to give S- and R-citalopram, or the mixture of S- and R-citalopram, the. ~~The~~ S-citalopram diol intermediate is subjected to ring closure to give S-citalopram, and S-citalopram can further be conversed into its corresponding acid addition salts.

Claim 12 (currently amended): The method of Claim 9 ~~any of the Claims 9-11~~ characterized ~~by~~ in that: the mixture of S- and R-citalopram diol intermediate free alkali or salt is obtained through precipitation or crystallization, wherein the ratio of S- and R-citalopram diol intermediate is between 0.8 and 1.2, the preferred ratio is between 0.95 and 1.05, the most preferred ratio is 1.0.

Claim 13 (currently amended): The method of Claim 1 ~~any of the Claims 1-5~~ characterized ~~by~~ in that: citalopram diol intermediate free alkali is directly crystallized from the oil substance to provide ~~give~~ citalopram diol intermediate free alkali crystal.

Claim 14 (currently amended): The method of Claim 11 ~~any of the~~

~~Claims 1-5 or Claims 11~~ characterized ~~by~~ in that: the solvent used can be the proper single component or non-single component solvent that can dissolve citalopram diol intermediate free alkali or the proper mixture of them, or the bicomponent or multicomponent mixture of water and some water soluble solvents of a proper proportion.

Claim 15 (currently amended): The method of Claim 14 characterized ~~by~~ in that: the preferred solvents are C_{1-4} alcohol, the bicomponent or multicomponent mixture of C_{1-4} alcohol and water, C>4 ester, C_{3-8} hydrocarbon and/or cycloparaffin, the mixture of C>3 ester and /or cycloparaffin; the more preferred are 60%~90% methanol solution, 60%~90% ethanol solution, isopropyl ether, the mixture of isopropyl ether and hexane; the most preferred are 70% ethanol solution , the mixture of isopropyl ether and hexane (v/v=1:2), the mixture of isopropyl ether and heptane (v/v=1:2).

Claim 16 (currently amended): The method of Claim 14 characterized ~~by~~ in that: the crystallization temperature can be any proper temperature between -40°C and the boiling point of the solvent, the preferred temperature is between -20°C and 60°C the more preferred is temperature between -5 °C and room temperature.

Claim 17 (currently amended): The method of Claim 1 ~~any of the Claims 1-16~~ characterized ~~by~~ in that: citalopram diol intermediate free alkali crystal or its optical enantiomers as well as their acid addition salts with a purity of over 99.6% are prepared.

Claim 18 (currently amended): The method of Claim 1 ~~the Claims 1-17~~ characterized ~~by~~ in that: through ordinary purification, the purity of citalopram free alkali or S-citalopram free alkali and their acid addition salts obtained after ring closure is over 99.5%(w/w), the preferred purity is 99.8%(w/w); wherein, the purity of S-citalopram free alkali and its acid addition salts is over

97%(w/w), the preferred purity is 99%(w/w).

Claim 19 (currently amended): The method of Claim 1 ~~the Claims 1-18~~ characterized ~~by~~ in that: the obtained pure citalopram free alkali or S- citalopram free alkali forms salt with some pharmaceutically acceptable acids either through crystallization or not, to give citalopram salt or S-citalopram salt whose purity is over 99.7%(w/w) and the preferred purity is 99.9%(w/w).

Claim 20 (currently amended): A method of preparing a drug comprising the step of utilizing the citalopram ~~Citalopram~~ free alkali or S-citalopram free alkali or their salts prepared according to the method of Claim 18 in ~~methods of Claim 18 and Claim 19, can be directly used for~~ the preparation of the drug.

Claim 21 (currently amended): The method according to Claim 20, wherein the citalopram ~~Citalopram~~ free alkali or S-citalopram free alkali and their salts ~~prepared according to the methods of Claim 20~~ are conversed into routine formulations through routine methods by adding one or more ~~some~~ pharmaceutically acceptable ~~adjuvants~~ excipients.

Claim 22 (currently amended): A crystal alkali of Formula I which is characterized ~~by~~ in that: a mixture containing both S- and R-enantiomer of Formula I, wherein the ratio of S- and R-enantiomer is between 0.5 and 1.5, the preferred ratio is between 0.8 and 1.2, the most preferred ratio is 1.0, namely racemic crystal alkali.